

SAVINGS PATTERNS IN RURAL NIGER

by

Carlos E. Cuevas and Namatie Traoré

**Assistant Professor and Graduate Research Associate
Department of Agricultural Economics and Rural Sociology
The Ohio State University**

August 1988

**Paper presented at the 31st Annual Meeting of the African Studies Association
Chicago, Illinois, October 28 - 31, 1988**

ABSTRACT

This paper explores three issues of importance in the study of savings behavior in developing countries, based on data obtained at the "Caisse Nationale d'Epargne" (CNE) of Niger. First, it shows that, relative to the availability of CNE branches, rural people are more active than urban savers in establishing accounts at the institution. Furthermore, our results suggest that the proportion of income saved in financial form by rural depositors is likely to be higher than that of the urban clientele.

Second, the life-cycle hypothesis of savings behavior is supported by the data analyzed in this study. Indeed, the middle-age group showed the largest share in total deposits at the CNE. However, further research appears necessary to control for other factors that may be affecting the results presented here, especially those associated with access to other means of formal and informal savings.

Finally, the relative importance of agricultural activities and other occupations closely associated with agriculture in the CNE clientele was estimated to be about 15 percent, a share substantially larger than that estimated in previous studies in the same institution.

Patterns of Savings In Rural Niger

by

Carlos E. Cuevas and Namatie Traoré

INTRODUCTION

This paper addresses three important issues in the study of savings behavior in developing countries. First, we look into the relative importance of rural depositors versus urban depositors to evaluate the conventional belief that rural people do not save or do it in very limited amounts. Second, the age composition of depositors and the shares of different age-categories in total deposits are used to test the life-cycle (Ando-Modigliani) hypothesis of savings behavior. Finally, the occupational profile of rural depositors serves as an empirical basis to determine the relationships between savings performance and agricultural activities. The study relies upon data gathered from the "Caisse Nationale d'Epargne" (CNE), the post-office savings network of Niger, sole financial institution providing deposit services in rural areas.

A summary background of the Niger economy and financial system, a brief description of the CNE, and of the nature of the data and methods of analysis are presented next in this introductory section. Then we focus on the analyses of the issues set forth above in three separate sections. Some concluding remarks follow.

Background¹

Niger is one of the largest and poorest countries in West Africa. About four-fifths of its territory is covered by the Sahara desert. The population (6.1 million inhabitants in 1985) is primarily rural (90 percent), concentrated in the more favorable area of the south, the Sahelian region. Average GDP per

¹ This section relies upon Cuevas (1987).

capita estimated for 1985 was the equivalent of 257 US dollars per year, one of the lowest in the continent. Rural income per capita is estimated to be only 135 US dollars per year, about one-tenth that of the non-rural section. Niger is a member of the West African Monetary Union whose central bank is the "Banque Centrale des Etats de l'Afrique de l'Ouest" (BCEAO). All member countries of the BCEAO - Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal and Togo - share the same currency, the CFA franc, pegged to the French franc at the fixed exchange rate of 50 CFA francs per French franc. Thus not only exchange rate policies in Niger and all other member countries are automatically aligned with those of France, but also they have a limited degree of autonomy in controlling their money supply and credit. The BCEAO sets and controls monetary and interest rates policies in member countries mainly through rediscounting mechanisms. The money supply in each member country is a function of its domestic production, prices, liquidity, the balance of payments, the level of foreign reserves and the total foreign reserves of the union as a whole. Interest-rate policy regulates three types of interest rates: i), rediscount rates which determine the range of lending rates authorized to banks, ii), the interest rates to be paid on deposits, and iii), the interest rates prevailing in the UMOA's money market.

In addition to the BCEAO, nine banks comprise the banking system of Niger. Three of them are public development banks, and six are private commercial banks. These nine institutions together have only twenty-seven permanent branches which represent approximately one branch for every 226 thousand inhabitants. This is an extremely low bank density even for African standards (see Masini). Finally, the financial system also comprises three non-bank institutions, the "Caisse Nationale d'Epargne" (CNE), the "Caisse de Prêts aux

Collectivités Territoriales" (CPCT), and the "Fonds d'Intervention en Faveur des Petites et Moyennes Entreprises Nigériennes" (FIPMEN).

The "Caisse Nationale d'Epargne", CNE

The CNE is a public, autonomous financial institution created in 1970. It operates through the post office network of the OPT ("Offices des Postes et Télécommunications"). It does not provide any lending services and it mobilizes funds in the form of savings deposits and retirement accounts. The CNE itself has a limited staff (33 people) to provide its services nationwide and relies on forty-three post offices and eight mobile units of the OPT. Fifty employees of the OPT are involved in the operations of the CNE throughout the country (Cuevas 1987). The CNE is the only institutional supplier of deposit services in rural areas, therefore, the analysis of its clientele is particularly relevant to study rural saving behavior.

Data and Methods

The data used in this study was gathered at the CNE from a random sample of the forms used to open savings accounts at the institution. The sample included 7242 accounts opened between 1960 and 1986, about 11 percent of the total number of accounts opened during this period. The forms provide information about the depositor's place of residence, occupation, gender, date of birth and amount of the initial deposit. Deposit amounts were converted to constant FCFA of 1986 using the consumer price index as deflector.

The age of the depositor was determined by subtracting the birthyear from the year the account was opened. A large number of observations corresponded to accounts opened in the name of minors with no information about the age and occupation of their parents. This made it necessary to sometimes exclude minors from the sample before conducting the analysis (e.g. on the study of the

occupational profile of depositors). However, to analyze the life-cycle hypothesis it was assumed that all accounts held in the name of minors could be added to the middle-age category of depositors (25 to 45 year old).

COMPOSITION OF THE CNE CLIENTELE 1960 - 1986.

This section discusses two issues: first, the distribution of the CNE clientele among urban and urban areas, relative to the availability of post offices providing deposit services; secondly, we analyze the age-composition of the clientele to obtain some insights on the validity of the life-cycle hypothesis of savings behavior.

Urban and Rural Clientele

Niamey, the capital city, is the major urban center of Niger. Maradi and Zinder, the second and third largest cities respectively, are usually considered urban settings as well, even though an important proportion of their activity depends upon agricultural and livestock enterprises operating in the surrounding areas.

Table 1 shows that urban centers represented almost 58 percent of the depositors and accounted for 64 percent of the amounts deposited in the sample. Niamey depositors alone comprised 47 percent of the CNE clientele and held almost 57 percent of the total deposits. It's also in Niamey where the highest average deposits are observed. Very little savings activity appears to take place in Maradi and Zinder, these two cities together accounted for only 10 percent of the depositors and 8 percent of the total amounts deposited. Rural depositors accounted for 42 percent of the number of accounts and 36 percent of the total deposit amounts in the sample.

Overall, rural savings are far from negligible if one takes into account the distribution of the CNE's branches, two-thirds are located in Niamey alone, thus less than one-third of the branches are available to rural savers. Therefore, relative to the availability of the services, rural people are more active in opening accounts at the CNE than urban savers. Furthermore, average deposit amounts are only 30 percent larger in urban centers than in rural areas. This is in sharp contrast with the fact that urban per capita income is 10 times as large as that of rural areas. Even admitting that the urban clientele of the CNE may be concentrated among the middle-to-low income urban population, this result suggests that the proportion of income saved in rural areas is at least as high as, and most likely higher than, that of urban areas. These results support the view that people in the rural sector can and will save in financial form, given the opportunity to do so at low transaction costs.

Composition of the Clientele by Age Group: The Life-Cycle Hypothesis

The life-cycle hypothesis postulated by Ando and Modigliani to explain consumption behavior sustains that the average individual has an income stream relatively low at the beginning and at the end of his/her life, when his/her productivity is low. Productivity and income are high during the middle of the individual's life. Therefore, since consumption remains more or less constant or increases only slightly throughout the life of the individual, the mid-life period would correspond to the savings period, whereas at the beginning and at the end the average individual would borrow or dissave (Branson).

The relationship between productivity and age assumed by the Ando-Modigliani hypothesis cannot be tested here with the information available from the account forms of the CNE. We can, however, provide some insights into the

second proposition of the hypothesis namely that the mid-life period is the more active savings period of the individual. With this purpose, the accounts were classified according to the age of the depositor into 5 groups. The first category, minors, is comprised by all account holders less than 14 years old and is separated from the others on the basis that these depositors are not income earners. Indeed, these accounts are opened in the name of the children by their parents, which were assumed to belong to the middle age category (26 to 45 years old).

As can be seen in Table 2, the 14-25 age group is the largest group of account holders, they represent 46 percent of total depositors and hold 38 percent of the savings balances. On the other hand, savers forty-six years old and older represent about 3 percent of the total number of accounts but accounted for 12 percent of the accounts opened. Thus their average deposit is considerably larger than those of other groups. Rather surprisingly, savers 36-45 years old have a rather low participation in both total number of accounts opened and in the total amount of deposits in the sample (Table 2).

The importance of savers in the 14-25 age group in both the number of accounts and the total amount of deposits might be explained by the fact that they bear little family burden and can therefore save more of their income. It must also be kept in mind that savings at the CNE is only one of the options available to the individual to save in financial form, particularly in urban areas. Also, it is at this stage in the life of the average individual that her/his participation in informal savings groups is likely to be more active. The existence and activity of these informal savings schemes have been recently documented in the rural areas of Niger (Graham et al.)

As pointed out above, an important pattern that emerges from the data analyzed here is the opening of savings accounts in the name of the children. In fact, if the accounts and amounts deposited in the name of minors are added to the number of accounts and amounts deposited by the middle age group (26-45 years old), the share of this group in the number of accounts increases to 51 percent of the total sample, representing 50 percent of the total amount of deposits in the sample, thus becoming the age-group with the largest share in both the total number of accounts and the total amount deposited.

Furthermore, the data showed that the participation of the age group between 14 and 25 years old has increased in the 25 years of operations of the CNE. Their share of the number of accounts went from 45 to 50 percent, and their participation in the total number of deposits increased from 31 to 40 percent in the same period. The importance of the 14-25 age-group in both the total number of accounts opened and the total amount of deposits becomes more clear when minors are excluded from the sample. The share of the age category 14-25 years old in the total number of accounts held by depositors 14 years old and older has always exceeded 60 percent, except in the 1966-1970 period, and their share of total savings went from 45 to 55 percent between 1960 and 1975. This increasing importance may be reflecting the effect of improved literacy through time benefiting more this age-group than the older age-categories, thus facilitating their access to institutional forms of finance.

The results presented here support the life-cycle hypothesis. This hypothesis appears to hold both for the number of accounts and the total amount of deposits in the sample. Further research would be necessary to control for other factors that may be affecting the results presented here, primarily those factors associated with access to other means of formal and informal savings.

OCCUPATIONAL PROFILE OF THE RURAL CLIENTELE

A large diversity of occupations were declared in the forms used to open savings accounts at the CNE. An effort was made to group these different professions and occupations, in an attempt to assess the relative importance of agricultural and rural-related activities among the rural clientele of the institution. Table 3 summarizes the results obtained, after excluding the accounts held by minors, and those corresponding to organizations (only 17 in rural areas). It must be pointed out that the classification of occupations in the different categories shown in Table 3 was necessarily arbitrary. Public employees holding accounts were classified according to the rural or non-rural nature of the institution where they worked. On the other hand, only farmers, sharecroppers and livestock herders were classified as agricultural activities, so that the relative importance of these activities would be under-estimated rather than over-estimated in the analysis.

Public employees and non-agricultural occupations made up the majority of the CNE clientele. Even excluding those public employees working in rural-related institutions, non-agricultural occupations and public employees in non-rural institutions accounted for about three-fourths of the accounts held by clients residing in rural areas, and a similar share in the total amount of deposits in this sub-sample.

Strictly agricultural activities represented about three percent of the number of accounts, and a similar proportion of the amounts deposited. If we assume that all traders and merchants are directly related to agricultural activities, and add the public employees working in rural-related institutions, this broader definition of rural activities represents almost 15 percent of the total number of accounts in the sub-sample of rural residents (excluding minors

and organizations), and about 14 percent of the total amount of deposits in this sub-sample. This is certainly not a negligible share, about 15 times that estimated by the institution in a previous sample of one thousand accounts.

CONCLUDING REMARKS

This paper has explored three issues of importance in the study of savings behavior in developing countries. First, it has been shown that, relative to the availability of CNE branches, rural people are more active than urban savers in establishing accounts at the institution. Furthermore, our results suggest that the proportion of income saved in financial form by rural depositors is likely to be higher than that of the urban clientele.

Second, the data analyzed here support the validity of the life-cycle hypothesis of savings behavior. However, further research appears necessary to control for other factors that may be affecting the results presented here, especially those associated with access to other means of formal and informal savings.

Finally, the relative importance of agricultural activities and other occupations closely associated with agriculture in the CNE clientele was estimated to be about 15 percent, a share substantially larger than that estimated in previous studies in the same institution.

Table 1

Distribution of Savings Deposits in Urban Centers and Rural Areas

Urban Centers and Rural Localities	Deposit Accounts		Deposit Amounts, FCFA 1986		
	Number	% of Total Sample	Average per Account	Total	% of Total Sample
Urban Centers	4030	57.73	22539	90832522	64.21
Niamey	3301	47.29	24401	80548581	56.94
Maradi	368	5.27	12262	4512498	3.19
Zinder	361	5.17	15987	5771443	4.08
Rural Localities	2950	42.26	17163	50629363	35.79
Total Sample	6980	100.00	20267	141461885	100.00

Source: CNE data survey, 1986.

Table 2

Distribution of Savings Deposits by Age Group

Age Category	Deposit Accounts		Deposit Amounts, FCFA 1986		
	Number	% of Total Sample	Average per Account	Total	% of Total Sample
(less than 14 Minors years old)	1725	24.71	12111	20891466	14.77
14-25 years old	3232	46.30	16800	54297856	38.38
26-35 years old	1434	21.40	24446	36523118	25.82
36-45 years old	341	4.89	38429	13104245	9.26
46 and older	188	2.69	88538	16645200	11.77
Total	6980	100.00	20267	141461885	100.00

Source: CNE data survey, 1986.

Table 3
Distribution of Savings Deposits in Rural Areas by Occupational Groups

Occupation ^a	Deposit Accounts		Deposit Amounts, FCFA 1986		
	Number	Percent of total sample	Average per Account	Total	Percent of total sample
Public employees, rural	156	8.2	18753	2925427	8.2
Public employees, non-rural	735	38.6	19818	14566403	40.9
Non Agricultural	826	43.4	16561	13679568	38.4
Agricultural	53	2.8	19138	1014288	2.8
Traders and merchants	68	3.6	14027	953832	2.7
Other	64	3.4	38821	2484556	7.0
Total	1902	100.0	18730	35624074	100.0

Source: CNE data survey, 1986.

a Excludes minors and organizations.

REFERENCES

Branson, William H., Macroeconomic Theory and Policy. Harper and Row, New York, 1979.

Cuevas, Carlos E. "Niger", in Masini, Mario, editor, Rural Finance Profiles in African Countries, Finafrica, Milan, 1987.

Graham, Douglas H., et al., "Rural Finance in Niger: A Critical Appraisal and Recommendations for Change". Report to USAID/Niamey, Ohio State University, December 1986.

Masini, Mario, editor, Rural Finance Profiles in African Countries, Finafrica, Milan, 1987.

